

What is claimed is:

1. An elastic attachment adhesive composition, comprising:
between about 70% and about 90% rubber-based adhesive; and
between about 10% and about 30% crystalline polymer having a degree of crystallinity of at least about 40%.
2. The adhesive composition of Claim 1, comprising between about 75% and about 90% of the rubber-based adhesive, and between about 10% and about 25% of the crystalline polymer.
3. The adhesive composition of Claim 1, comprising between about 80% and about 90% of the rubber-based adhesive, and between about 10% and about 20% of the crystalline polymer.
4. The adhesive composition of Claim 1, wherein the degree of crystallinity of the crystalline polymer is at least about 60%.
5. The adhesive composition of Claim 1, wherein the degree of crystallinity of the crystalline polymer is at least about 80%.

6. The adhesive composition of Claim 1, wherein the crystalline polymer has a number-average molecular weight between about 3,000 and about 200,000.

7. The adhesive composition of Claim 1, wherein the crystalline polymer has a number-average molecular weight between about 10,000 and about 100,000.

8. The adhesive composition of Claim 1, wherein the adhesive composition has a melt index between about 200 and about 2000 grams per 10 minutes.

9. The adhesive composition of Claim 1, wherein the adhesive composition has a melt index between about 400 and about 1800 grams per 10 minutes.

10. The adhesive composition of Claim 1, wherein the adhesive composition has a melt index between about 500 and about 1500 grams per 10 minutes.

11. The adhesive composition of Claim 1, wherein the rubber-based adhesive comprises at least one of the group consisting of styrene-isoprene-styrene, styrene-butadiene-styrene, styrene-ethylene/propylene-styrene, ethylene-propylene-diene-monomer, styrene/ethylene-co-butadiene/styrene, and styrene-poly(ethylene-propylene)-styrene-poly(ethylene-propylene).

12. The adhesive composition of Claim 1, wherein the crystalline polymer comprises at least one of the group consisting of isotactic polymer, syndiotactic polymer, and combinations thereof.

13. The adhesive composition of Claim 1, wherein the crystalline polymer comprises isotactic polypropylene.

14. The adhesive composition of Claim 1, wherein the crystalline polymer is selected from the group consisting of: high density polyethylene, isotactic polystyrene, isotactic polybutene, and combinations thereof.

15. A laminated structure comprising:

a first elastomeric substrate;

a second substrate; and

an elastic attachment adhesive composition bonding the first substrate and the second substrate to one another, wherein the adhesive composition includes a rubber-based adhesive and a crystalline polymer having a degree of crystallinity of at least about 40%.

16. The laminated structure of Claim 15, comprising between about 70% and about 90% of the rubber-based adhesive, and between about 10% and about 30% of the crystalline polymer.

17. The laminated structure of Claim 15, comprising between about 75% and about 90% of the rubber-based adhesive, and between about 10% and about 25% of the crystalline polymer.

18. The laminated structure of Claim 15, wherein the degree of crystallinity of the crystalline polymer is at least about 60%.

19. The laminated structure of Claim 15, wherein the degree of crystallinity of the crystalline polymer is at least about 80%.

20. The laminated structure of Claim 15, wherein the crystalline polymer has a number-average molecular weight between about 3,000 and about 200,000.

21. The laminated structure of Claim 15, wherein the crystalline polymer has a number-average molecular weight between about 10,000 and about 100,000.

22. The laminated structure of Claim 15, wherein the rubber-based adhesive comprises at least one of the group consisting of styrene-isoprene-styrene, styrene-butadiene-styrene, styrene-ethylene/propylene-styrene, ethylene-propylene-diene-monomer, styrene/ethylene-co-butadiene/styrene, and styrene-poly(ethylene-propylene)-styrene-poly(ethylene-propylene).

23. The laminated structure of Claim 15, wherein the crystalline polymer comprises at least one of the group consisting of isotactic polymer, syndiotactic polymer, and combinations thereof.

24. The laminated structure of Claim 15, wherein the crystalline polymer comprises isotactic polypropylene.

25. The laminated structure of Claim 15, wherein the crystalline polymer is selected from the group consisting of: high density polyethylene, isotactic polystyrene, isotactic polybutene, and combinations thereof.

26. The laminated structure of Claim 15, wherein the first and second substrates are each part of a single substrate.

27. The laminated structure of Claim 15, wherein the adhesive composition is applied to at least one of the first and second substrates in a concentration of between about 1 gram per square meter and about 50 grams per square meter.

28. The laminated structure of Claim 15, wherein the adhesive composition is applied to at least one of the first and second substrates in a concentration of between about 5 grams per square meter and about 20 grams per square meter.

29. The laminated structure of Claim 15, wherein the first elastomeric substrate can be stretched between about 25% and about 300%.

30. The laminated structure of Claim 15, wherein the first elastomeric substrate can be stretched between about 70% and about 270%.

31. The laminated structure of Claim 15, wherein the first elastomeric substrate can be stretched between about 100% and about 250%.

32. The laminated structure of Claim 15, wherein the elastic attachment adhesive composition is stretchable.

33. The laminated structure of Claim 15, wherein the second substrate is non-elastic.

34. The laminated structure of Claim 15, wherein the second substrate is elastomeric.

35. The laminated structure of Claim 15, wherein the first elastomeric substrate is machine-direction stretchable.

36. The laminated structure of Claim 15, wherein the first elastomeric substrate is cross-direction stretchable.

37. The laminated structure of Claim 15, wherein the second substrate is machine-direction stretchable.

38. The laminated structure of Claim 15, wherein the second substrate is cross-direction stretchable.

39. The laminated structure of Claim 15, wherein the second substrate comprises at least one of the group consisting of nonwoven material, woven material, film, and an elastic component.

40. The laminated structure of Claim 15, wherein at least one of the first elastomeric substrate and the second substrate comprises at least one of the group consisting of a necked-bonded laminate, a stretch-bonded laminate, a polypropylene spunbonded layer, a polyethylene layer in combination with a polypropylene spunbonded layer, a styrene-isoprene-styrene strand, a styrene-butadiene-styrene strand, a styrene-ethylene/propylene-styrene strand, a styrene/ethylene-co-butadiene/styrene strand, and a polyurethane strand.

41. An absorbent article comprising:

a first elastomeric substrate;

a second substrate; and

an elastic attachment adhesive composition bonding the first substrate and the second substrate to one another, wherein the adhesive composition includes between about 70% and about 90% of a rubber-based adhesive and between about 10% and about 30% of a crystalline polymer having a degree of crystallinity of at least about 40%.

42. The absorbent article of Claim 41, wherein the degree of crystallinity of the crystalline polymer is at least about 60%.

43. The absorbent article of Claim 41, wherein the degree of crystallinity of the crystalline polymer is at least about 80%.

44. The absorbent article of Claim 41, wherein the crystalline polymer has a number-average molecular weight between about 3,000 and about 200,000.

45. The absorbent article of Claim 41, wherein the crystalline polymer has a number-average molecular weight between about 10,000 and about 100,000.

46. The absorbent article of Claim 41, wherein the rubber-based adhesive comprises at least one of the group consisting of styrene-isoprene-styrene, styrene-butadiene-styrene, styrene-ethylene/propylene-styrene, ethylene-propylene-diene-monomer, styrene/ethylene-co-butadiene/styrene, and styrene-poly(ethylene-propylene)-styrene-poly(ethylene-propylene).

47. The absorbent article of Claim 41, wherein the crystalline polymer comprises at least one of the group consisting of isotactic polymer, syndiotactic polymer, and combinations thereof.

48. The absorbent article of Claim 41, wherein the crystalline polymer comprises isotactic polypropylene.

49. The absorbent article of Claim 41, wherein the crystalline polymer is selected from the group consisting of: high density polyethylene, isotactic polystyrene, isotactic polybutene, and combinations thereof.

50. The absorbent article of Claim 41, wherein the first and second substrates are each part of a single substrate folded over.

51. The absorbent article of Claim 41, wherein the first elastomeric substrate can be stretched between about 25% and about 300%.

52. The absorbent article of Claim 41, wherein the first elastomeric substrate can be stretched between about 70% and about 270%.

53. The absorbent article of Claim 41, wherein the first elastomeric substrate can be stretched between about 100% and about 250%.

54. The absorbent article of Claim 41, wherein the elastic attachment adhesive composition is stretchable.

55. The absorbent article of Claim 41, wherein the second substrate is non-elastic.

56. The absorbent article of Claim 41, wherein the second substrate is elastomeric.

57. The absorbent article of Claim 41, wherein the first elastomeric substrate comprises at least one of the group consisting of a necked-bonded laminate, a stretch-bonded laminate, a polypropylene spunbonded layer, a polyethylene layer in combination with a polypropylene spunbonded layer, a styrene-isoprene-styrene strand, a styrene-butadiene-styrene strand, a styrene-ethylene/propylene-styrene strand, a styrene/ethylene-co-butadiene/styrene strand, and a polyurethane strand.

58. The absorbent article of Claim 41, wherein the second substrate comprises at least one of the group consisting of a necked-bonded laminate, a stretch-bonded laminate, a spunbond-meltblown-spunbond laminate, a polypropylene spunbonded layer, a polyethylene layer in combination with a polypropylene spunbonded layer, a styrene-isoprene-styrene strand, a styrene-butadiene-styrene strand, a styrene-ethylene/propylene-styrene strand, a styrene/ethylene-co-butadiene/styrene strand, and a polyurethane strand.

59. The absorbent article of Claim 41, wherein the second substrate comprises at least one of the group consisting of non-woven material, woven material, film, and an elastic component.

60. The absorbent article of Claim 41, comprising a diaper.

61. The absorbent article of Claim 41, comprising swim wear.

62. The absorbent article of Claim 41, comprising child training pants.

63. The absorbent article of Claim 41, comprising an adult incontinence garment.

64. The absorbent article of Claim 41, comprising a feminine care product.

65. The absorbent article of Claim 41, comprising a medical garment.

202501231450